CLAIMS

1. A method of determining the existence of or a predisposition to Alzheimer's disease, autoimmune disease or other neurodegenerative diseases, the method comprising the steps of taking a DNA bearing sample from a subject animal and analysing the sample to determine the allelic variants present at one or more of the SNP loci at positions -1082, -819 and -592 of the gene encoding IL-10.

2. A method according to claim 1, in which the genotype at all three positions -1082, -819 and -592 is determined.

3. A method according to claim 1 or claim 2 which further comprises analysing the sample to determine the alleles present for the genes encoding IL-6 and Apo-E.

4. A method according to claim 3 which further comprises analysing the sample to determine the alleles present for the gene encoding IL-1.

5. A method of treating Alzheimer's disease, autoimmune disease or other neurodegenerative disorder which comprises augmenting the function of a gene having one of the allelic polymorphisms of IL-10 shown in Table I.

6. A method of treating Alzheimer's disease, autoimmune disease or other neurodegenerative disorder which comprises decreasing the function of a gene having one of the allelic polymorphisms of IL-10 shown in Table I.

7. A method according to claim 5 or claim 6 where the modulation of the function of the gene is by genetic therapy.

8. A method according to claim 5 or claim 6 where the modulation of the function of the gene is by pharmacological intervention.

9. A method according to claim 8 where the pharmacological intervention is using one or more compounds that enhance or inhibit antigen specific production of interleukin-10 and, optionally, one or more other cytokines.

10. A method according to any claim 9, characterised in that the other cytokine is selected from the group consisting of interleukin-1 (α or β), interleukin-2, interleukin-3, interleukin-4, interleukin-5, interleukin-6, interleukin-7, interleukin-8, interleukin-9, interleukin-11, interleukin-12, interleukin-13, interleukin-14, interleukin-15, interleukin-16, interleukin-17, interferon-α, interferon-β, interferon-γ, TNF-α, TNF-β, G-CSF, GM-CSF, M-LSF, and TGF-β.

11. DNA fragments and cDNA fragments comprising the allelic polymorphs of Table I for use in the method of claim 7.

12. Use of the DNA or cDNA fragments of claim 11 in a method of screening compounds for the ability to modulate the allelic polymorphisms of Table I.

13. Use of the DNA or cDNA fragments of claim 11 in a method of screening compounds for the ability to modulate or prevent Alzheimer's disease.

14. Use of cytokines in the preparation of a medicament for the treatment or prophylaxis of diseases which are not neoplastic.

15. Use according to claim 14, characterised in that the disease is a neurodegenerative disorder or an autoimmune disorder.

16. Use according to claim 14 or claim 15, characterised in that the use is for Alzheimer's disease.

17. Use according to any one of claims 14 to 16, characterised in that the cytokine is selected from interleukin-1 (α or β), interleukin-2, interleukin-3, interleukin-4, interleukin-5, interleukin-6, interleukin-7, interleukin-8, interleukin-9, interleukin-10, interleukin-11, interleukin-12, interleukin-13, interleukin-14, interleukin-15, interleukin-16, interleukin-17, interferon-α, interferon-β, interferon-γ, TNF-α, TNF-β, G-CSF, GM-CSF, M-LSF, and TGF-β.